

Remarks

I. Status of claims

Claims 4-14, 16, 17, and 20-46 were pending. Claim 25 has been canceled. Claims 26, 32, 45, and 46 have been rewritten in independent form.

Claims 4, 6-14, 16, 17, and 20-24 have been allowed.

Claim 32 has been rewritten in independent form in response to the Examiner's indication that such a claim would be allowed. Claims 33-44 incorporate the features of independent claim 32 and therefore are patentable for at least the same reasons.

II. Claim rejections under 35 U.S.C. § 102

The Examiner has rejected claims 25 and 45 under 35 U.S.C. § 102(b) over Saito (JP5-84925).

Claim 25 has been canceled rendering the rejection over Saito moot.

Claim 45 has been amended and now recites that the seal contacts the electrical contacts and forms a moisture impenetrable barrier over the electrical contacts.

The Examiner has indicated that "Saito et al. further teach: wherein the print cartridge includes electrical contacts (16, fig. 1) and the seal forms a moisture impenetrable barrier over the electrical contacts (claim 45), refer to [0035]. Contrary to the Examiner's assertion, however, FIG. 1 does not show the adhesive tape 17 in contact with the electrical contacts of the electric contact point part 16. Instead, the adhesive tape 17 only contacts the exterior surface of the electric contact point part 16. The adhesive tape 17 covers a slot formed in electric contact point part 16. In operation, the adhesive tape 17 must be removed from the electric contact point part 16 before the mating connector at the end of the flexible cable 19 can be inserted into the slot, where the contacts in the flexible cable connector connect to the corresponding contacts of the electrical contact point part 16.

For at least these reasons, the Examiner's rejection of claim 45 under 35 U.S.C. § 102(b) over Saito should be withdrawn.

III. Claim rejections under 35 U.S.C. § 103

A. Claim 5

Claim 5 recites a laminate for sealing print cartridges that comprises a non-woven thin base film and a moisture retardant hot-melt layer.

The Examiner has rejected claim 5 under 35 U.S.C. § 103(a) over Saito in view of Smith (U.S. 4,490,925) and Carlotta (U.S. 5,400,060).

The Examiner has acknowledged that Saito's adhesive tape does not include a non-woven base film, nor does it include a moisture retardant hot-melt layer. Nevertheless, the Examiner has indicated that:

...it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Saito et al. to use the non-woven fabric as taught by Smith as the base film of the laminate for the purpose of providing hidden sources of air flow by these crevices spaces, which can add significantly to the total flow of air through the fabric.

The Examiner's assertion regarding the obviousness of substituting Smith's non-woven fabric for the base material 20 of Saito's adhesive tape ignores a fundamental requirement of a proper rejection under 35 U.S.C. § 103: namely, that "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings" (MPEP § 706.02(j)). None of the cited references provides any motivation for the combination proposed by the Examiner. Indeed, the only useful application taught by Smith for his non-woven fabric is a dryer fabric for a papermaking machine. Smith does not even hint that his non-woven fabric could be used to make an adhesive tape, much less an adhesive tape for sealing print cartridges.

Moreover, the Examiner's proposed motivation for substituting Smith's non-woven fabric for the base material 20 of Saito's adhesive tape is entirely unpersuasive. In particular, the purpose of Saito's adhesive tape is to close the air communication port and the recording liquid emitting part of an ink jet recording head. No useful purpose whatsoever is served by designing the base material 20 of Saito's adhesive tape with "hidden sources of air flow by these crevices spaces, which can add significantly to the total flow of air through the fabric,"

as proposed by the Examiner. Indeed, air flow through the base material 20 necessarily implies air flow through the adhesive layer 21, which would defeat the object of Saito's invention. For at least this reason, one of ordinary skill in the art at the time of the invention would likely view Smith's non-woven fabric as being unsuitable for use as a base material for Saito's adhesive tape. In addition, one of ordinary skill in the art at the time of the invention reasonably would view the contoured filler and closure elements B as restricting the flexibility to such a degree that the resulting adhesive tape would be unable to maintain sufficient sealing contact with the curved exterior surfaces of the electrical contact point part 16, as shown in FIG. 1 of Saito. Accordingly, for at least these reasons, one of ordinary skill in the art would not have a reasonable expectation that the Examiner's proposed modification of Saito's optical receiver would be successful.

Regarding Carlotta, the Examiner has indicated that:

...it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Saito et al. as modified in view of Smith to use [as] their adhesive layer the hot melt type as taught by Carlotta for the purpose of this hot melt adhesive becoming flowable upon application of heat but seal the print head upon cooling.

Contrary to the Examiner's assertion, however, the fact that the hot melt adhesive taught by Carlotta becomes flowable upon application of heat and seals the print head upon cooling would not have motivated one of ordinary skill in the art at the time of the invention to substitute Carlotta's hot melt adhesive for any of the adhesives disclosed in Saito. Indeed, the purported inventiveness of Saito's adhesive tape lies in his selection of a particular adhesive that meets the requirements outlined in the "Problem Addressed" section of Saito's disclosure. Substituting a different adhesive, such as Carlotta's hot melt adhesive, for Saito's purportedly inventive adhesive would defeat the object of Saito's invention. A modification that defeats the object of Saito's invention hardly would have been an obvious modification to one of ordinary skill in the art at the time of the invention.

It appears that the Examiner improperly has engaged in hindsight reconstruction of the claimed invention, using applicants' disclosure as a blueprint for piecing together prior art to defeat patentability. Without a proper explanation for combining the cited prior art, the Examiner has failed to establish a proper *prima facie* case of obviousness and the rejection of claim 5 should be withdrawn. If the Examiner is aware of facts within his personal

knowledge that provide the requisite factual basis and establishes the requisite motivation to support his deemed conclusion that the features recited in claim 5 would have been obvious, the Examiner is requested to provide an affidavit in accordance with 37 CFR § 1.104(d)(2). Otherwise, the Examiner is requested to desist from relying on such unsubstantiated assertions in his rejection of the claims.

For at least the reasons explained above, the Examiner's rejection of claim 5 under 35 U.S.C. § 103(a) over Saito in view of Smith and Carlotta should be withdrawn.

B. Claims 26-31

The Examiner has rejected claims 26-31 under 35 U.S.C. § 103(a) over Saito in view of Carlotta.

Claim 26 has been amended to incorporate the features of claim 29, which has been canceled, and now recites that the seal further comprises a non-woven base film attached to the hot melt adhesive layer. Claim 26 is patentable over Saito and Carlotta for the same reasons explained above in connection with claim 5.

Each of claims 27, 28, 30, and 31 incorporate the features of independent claim 26 and therefore is patentable over Saito and Carlotta for at least the same reasons.

C. Claim 46

The Examiner has rejected claim 46 under 35 U.S.C. § 103(a) over Saito.

The Examiner has acknowledged that Saito fails to teach or suggest anything about a print cartridge that includes electrical leads and a seal that contacts the electrical leads and forms a moisture impenetrable barrier over the electrical leads, as recited in claim 46.

Nevertheless, the Examiner has concluded that:

An electrical lead emanates from a contact pad so as to carry signal to another place via the lead in an obvious design in electronic circuitry.

Therefore, it would have been an obvious matter that an electrical lead associated with an electrical contact pad will be a fundamental design in an electronic circuitry, and while the Saito et al.'s seal seals the pads, in the meantime, the seal will also seal its associated lead.

As explained above in connection with claim 45, however, FIG. 1 of Saito does not show the adhesive tape 17 in contact with the electrical contacts of the electric contact point part 16. Instead, the adhesive tape 17 only contacts the exterior surface of the electric contact point part 16. Since the Examiner's argument rests on the incorrect assertion that Saito's adhesive tape "seals the pads", the Examiner's basis for rejecting claim 46 is not supported by Saito. In addition, the premise of the Examiner's argument (i.e., that a reference that teaches a seal that "seals the pads" necessarily renders obvious a claim that recites a seal that contacts electrical leads and forms a moisture impenetrable barrier over the electrical leads) is incorrect. There still must be some teaching or suggestion, either in the cited references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference teachings in the way the Examiner has proposed. For the Examiner's edification, the Examiner is reminded that:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not on applicants' disclosure.

MPEP § 706.02(j) (emphasis added). Furthermore, as pointed out by the Patent Office Board of Appeals and Interferences:

The examiner should be aware that "deeming" does not discharge him from the burden of providing the requisite factual basis and establishing the requisite motivation to support a conclusion of obviousness.

Ex parte Stern, 13 USPQ2d 1379 (BPAI 1989).

For at least these reasons, the Examiner's rejection of claim 45 under 35 U.S.C. § 102(b) over Saito should be withdrawn.

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IV. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

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Edouard Garcia
Reg. No. 38,461
Telephone No.: (650) 631-6591

Please direct all correspondence to:

Hewlett-Packard Company
Intellectual Property Administration
Legal Department, M/S 35
P.O. Box 272400
Fort Collins, CO 80528-9599